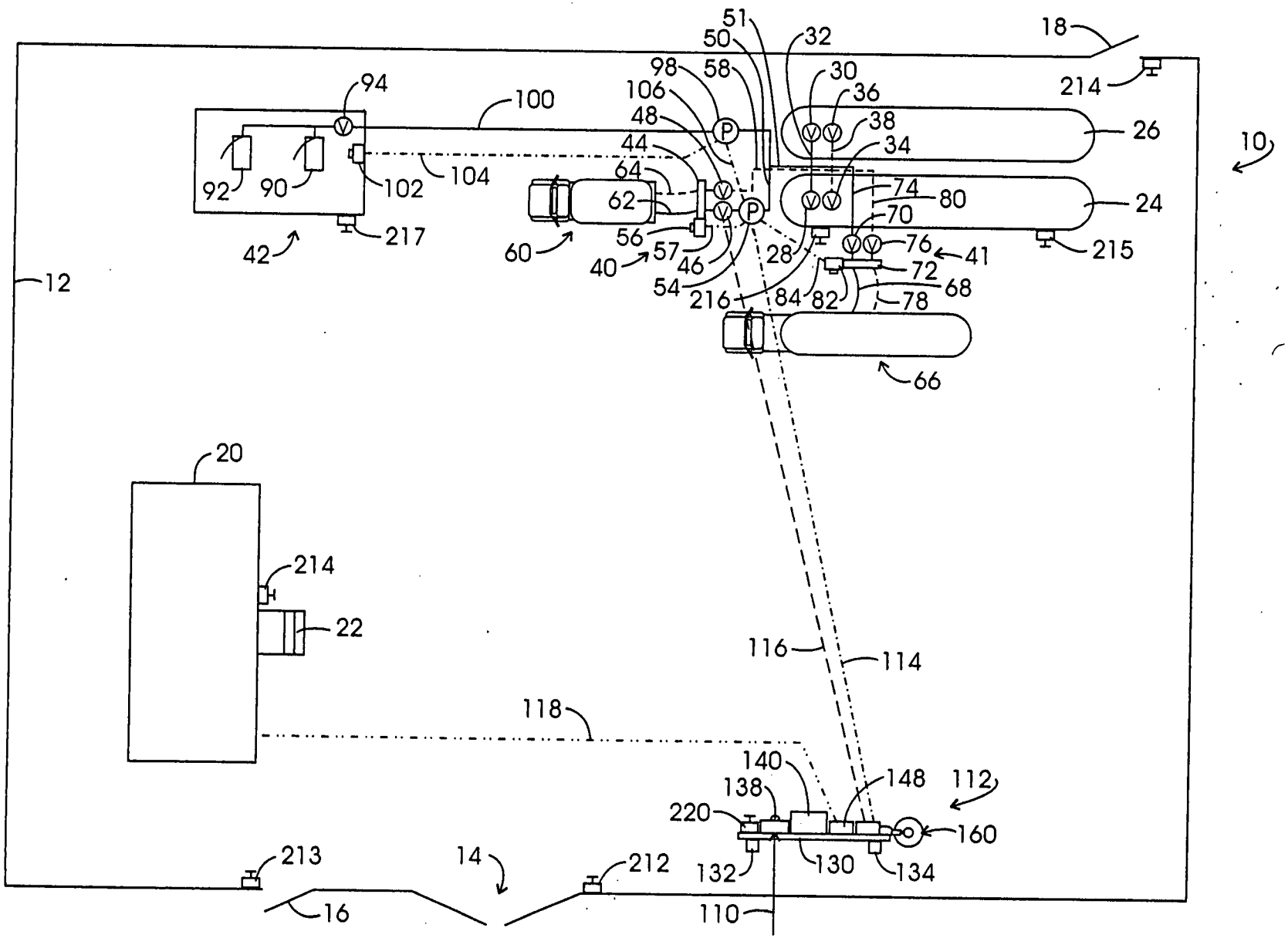
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50
32
18
98
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214
106
36
94
100
48
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26
10
44
34
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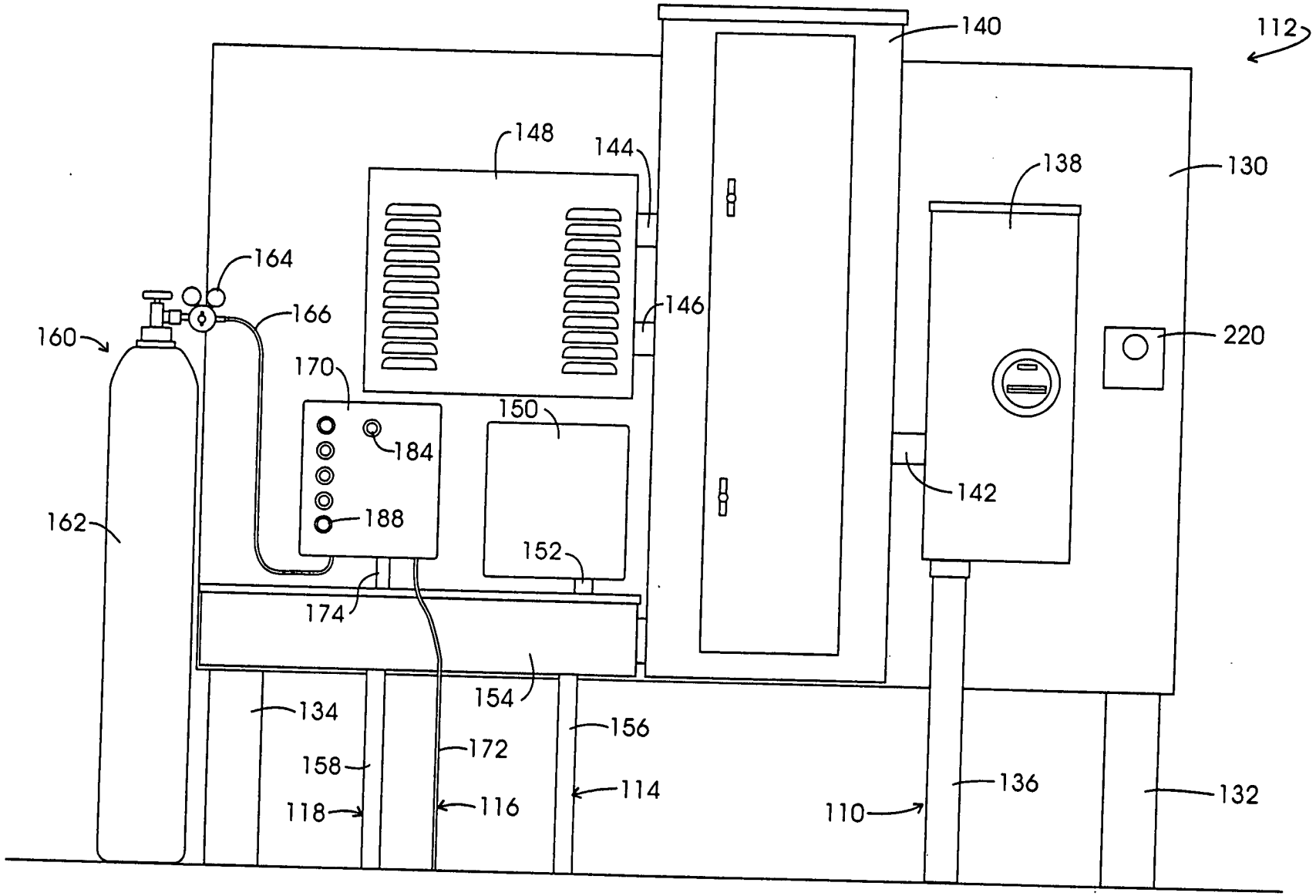
92
90
102
104
62
24
70
217
42
60
56
57
46
28
76
41
215
40
54
216
84
82
72
68
78
66
12
20
214
22
116
114
118
140
148
112
138
220
160
213
14
212
132
130
134
16
110

FIG. 1


112
140
148
144
138
130
164
146
160
166
220
170
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184
142
162
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152
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154
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156
158
172
114
118
116
110
136
132

FIG. 2

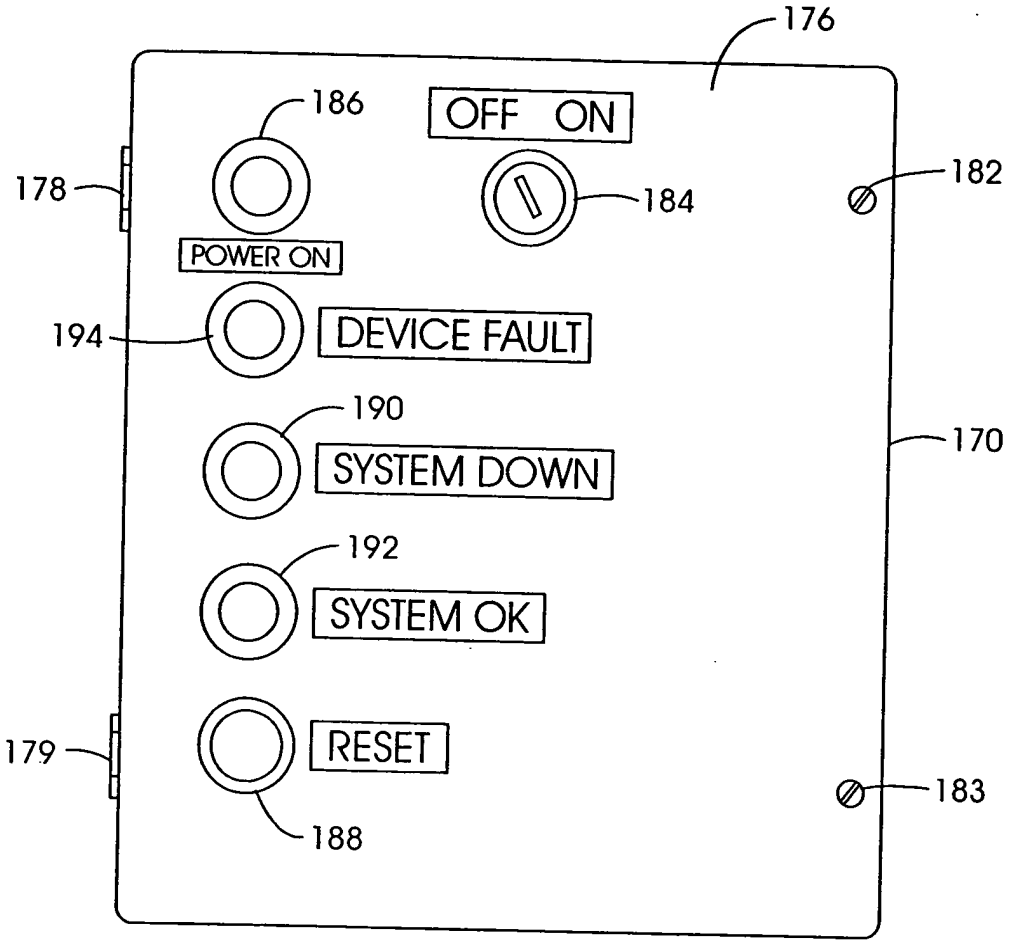


FIG. 3

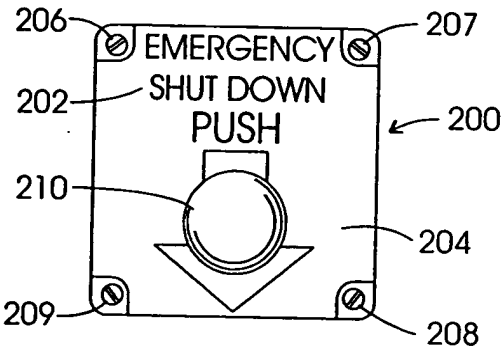


FIG. 4

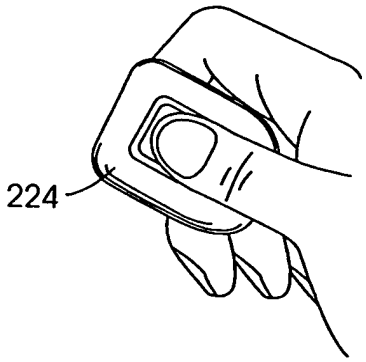
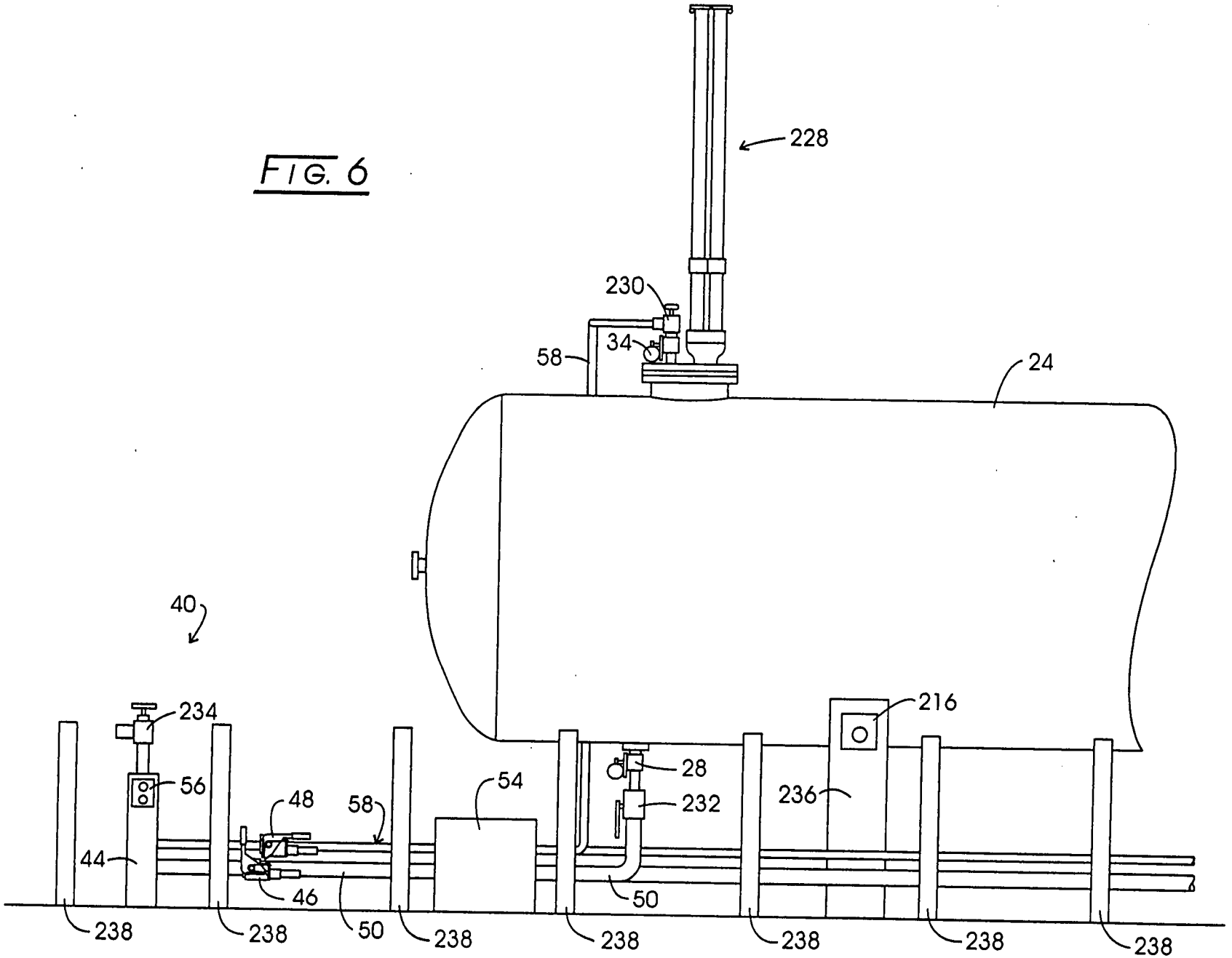


FIG. 5

FIG. 6


228
230
34
58
24
40
234
56
48
58
54
28
232
236
216
44
46
50
50
238
238
238
238
238
238
238
238

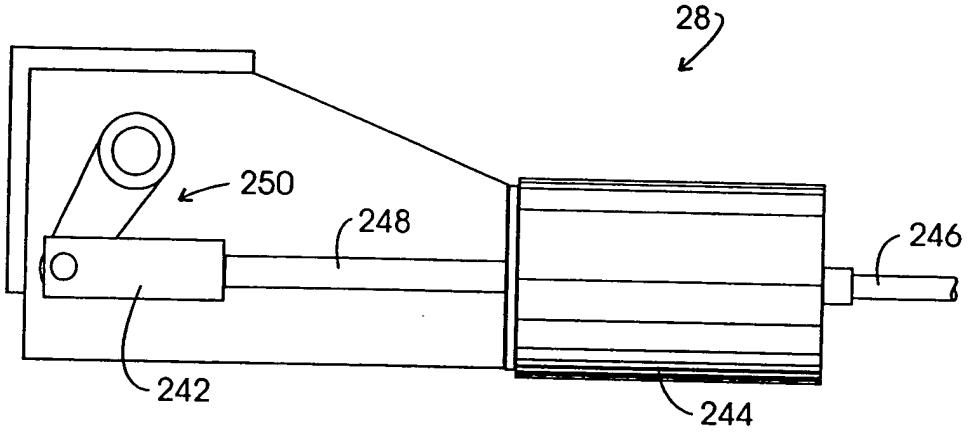


FIG. 7

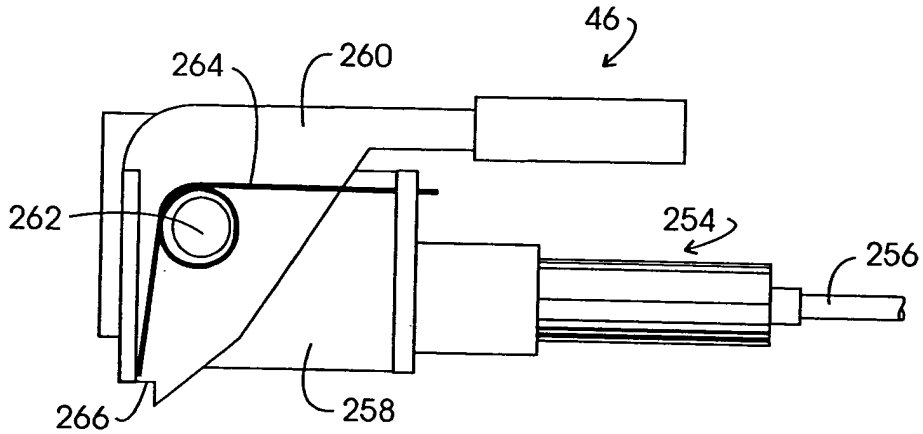


FIG. 8

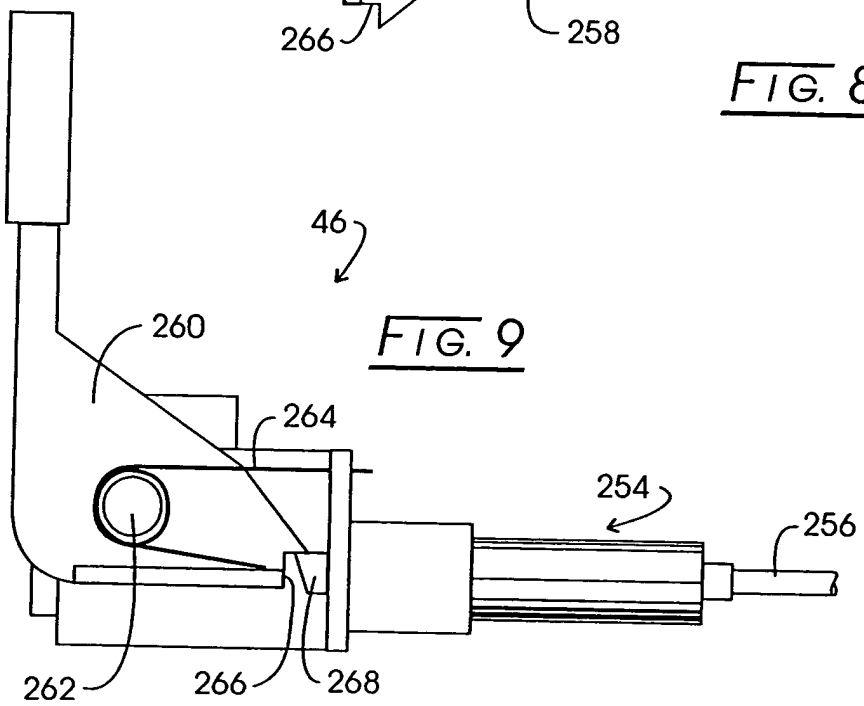


FIG. 9

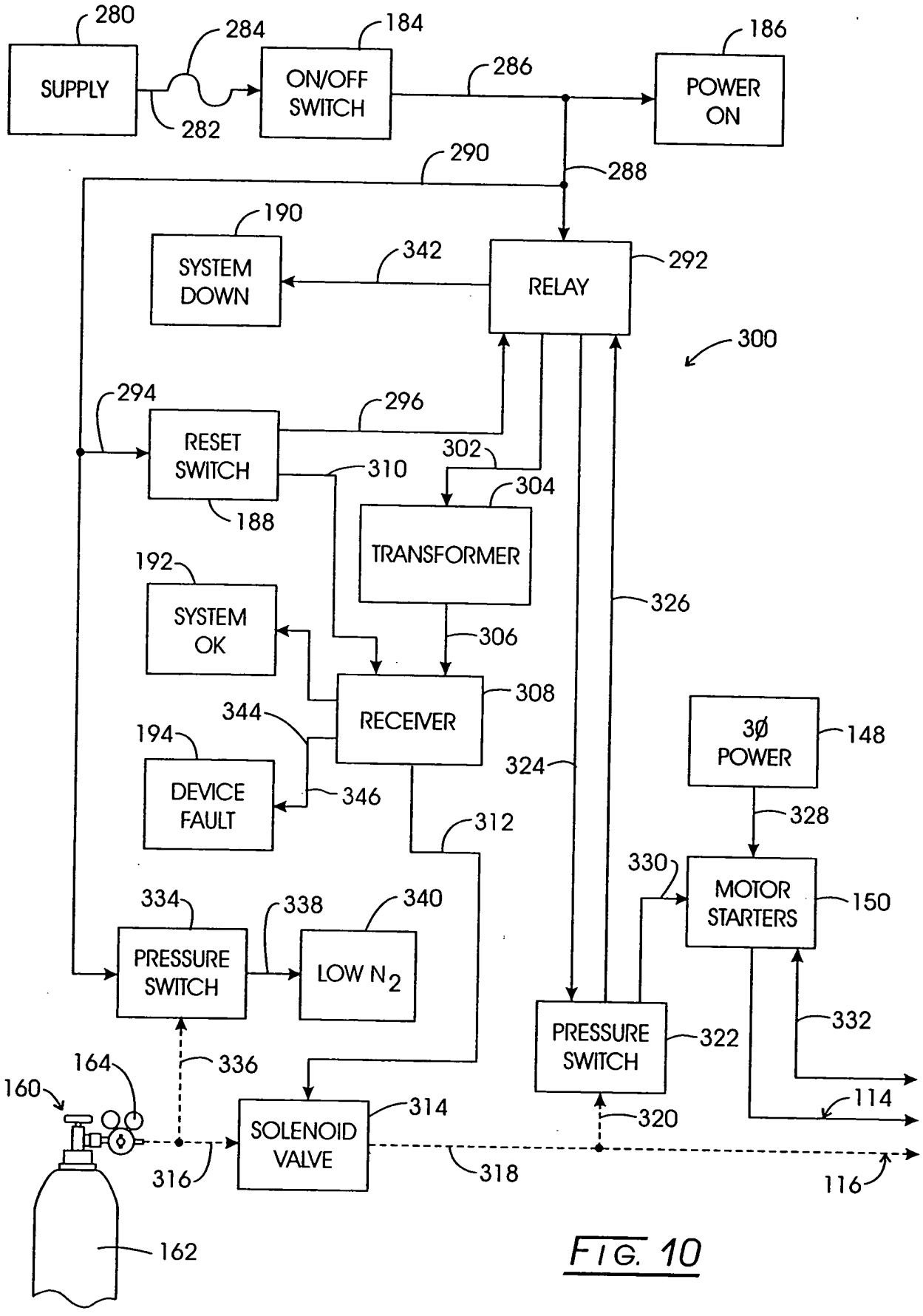

280
SUPPLY
284
282
184
ON/OFF SWITCH
286
186
POWER ON
290
288
190
SYSTEM DOWN
342
RELAY
292
300
294
RESET SWITCH
296
310
188
302
304
TRANSFORMER
192
SYSTEM OK
306
326
RECEIVER
308
344
194
DEVICE FAULT
346
312
324
3Ø POWER
148
328
330
MOTOR STARTERS
150
334
PRESSURE SWITCH
338
LOW N_2
340
PRESSURE SWITCH
322
332
164
160
336
SOLENOID VALVE
314
320
114
316
318
116
162

FIG. 10

FIG. 11

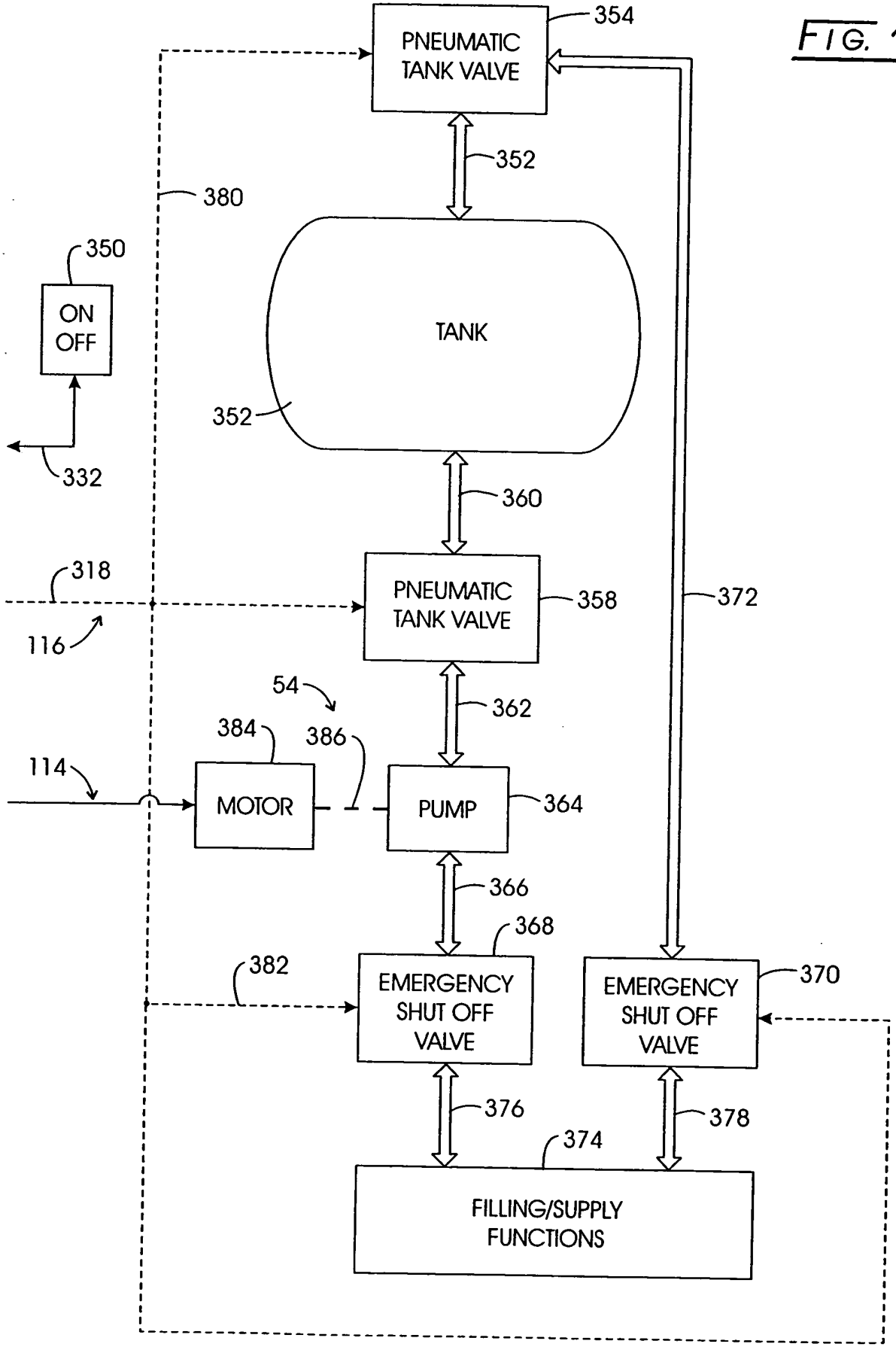

PNEUMATIC TANK VALVE
354
352
380
350
ON OFF
TANK
352
332
360
318
PNEUMATIC TANK VALVE
358
372
116
54
362
384
386
114
MOTOR
PUMP
364
366
368
382
EMERGENCY SHUT OFF VALVE
EMERGENCY SHUT OFF VALVE
370
376
378
374
FILLING/SUPPLY FUNCTIONS

FIG. 12

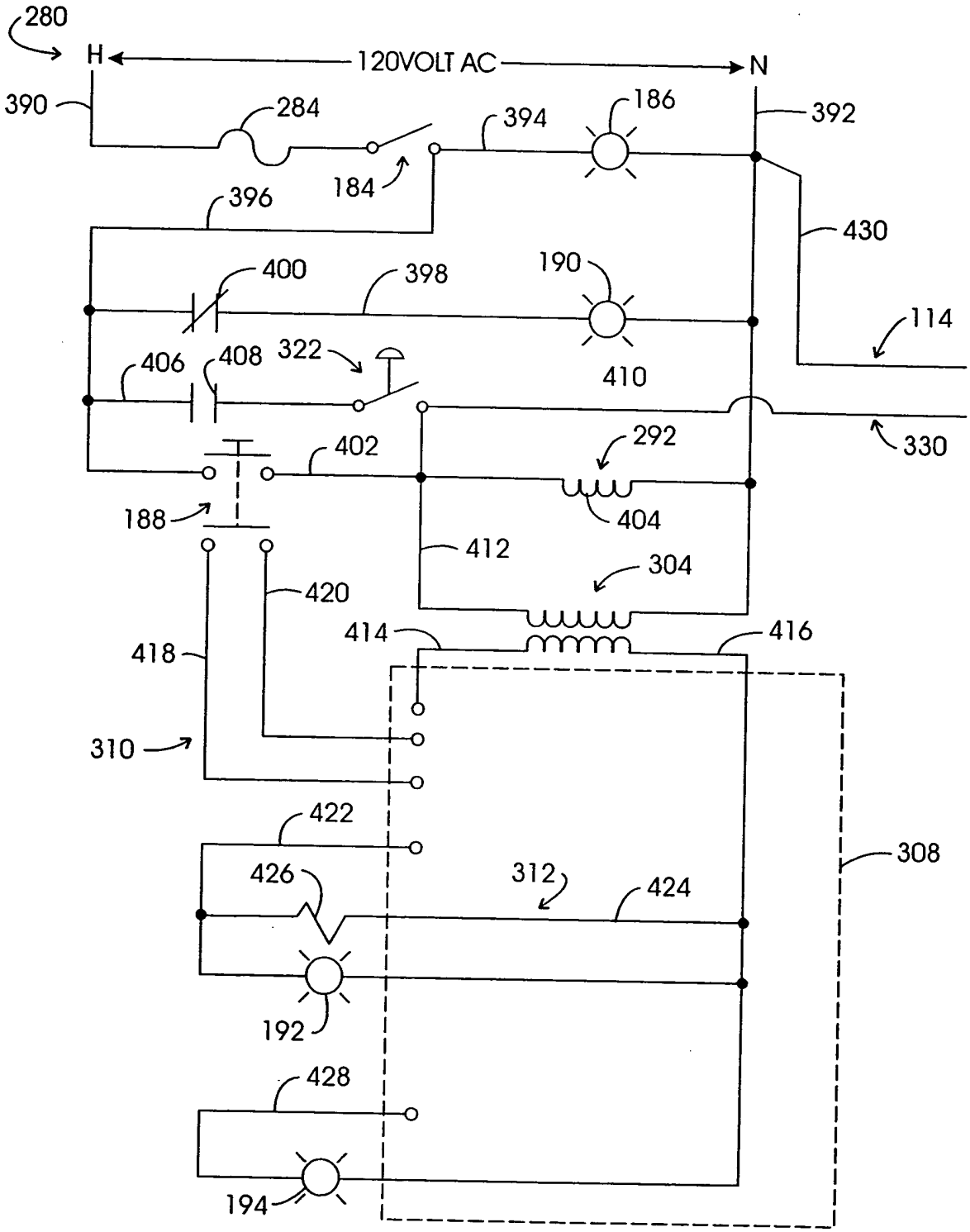

280
H
120VOLT AC
N
390
284
394
186
392
184
396
430
400
398
190
114
406
408
322
410
330
402
292
188
404
412
304
420
414
416
418
310
422
308
426
312
424
192
428
194

FIG. 13

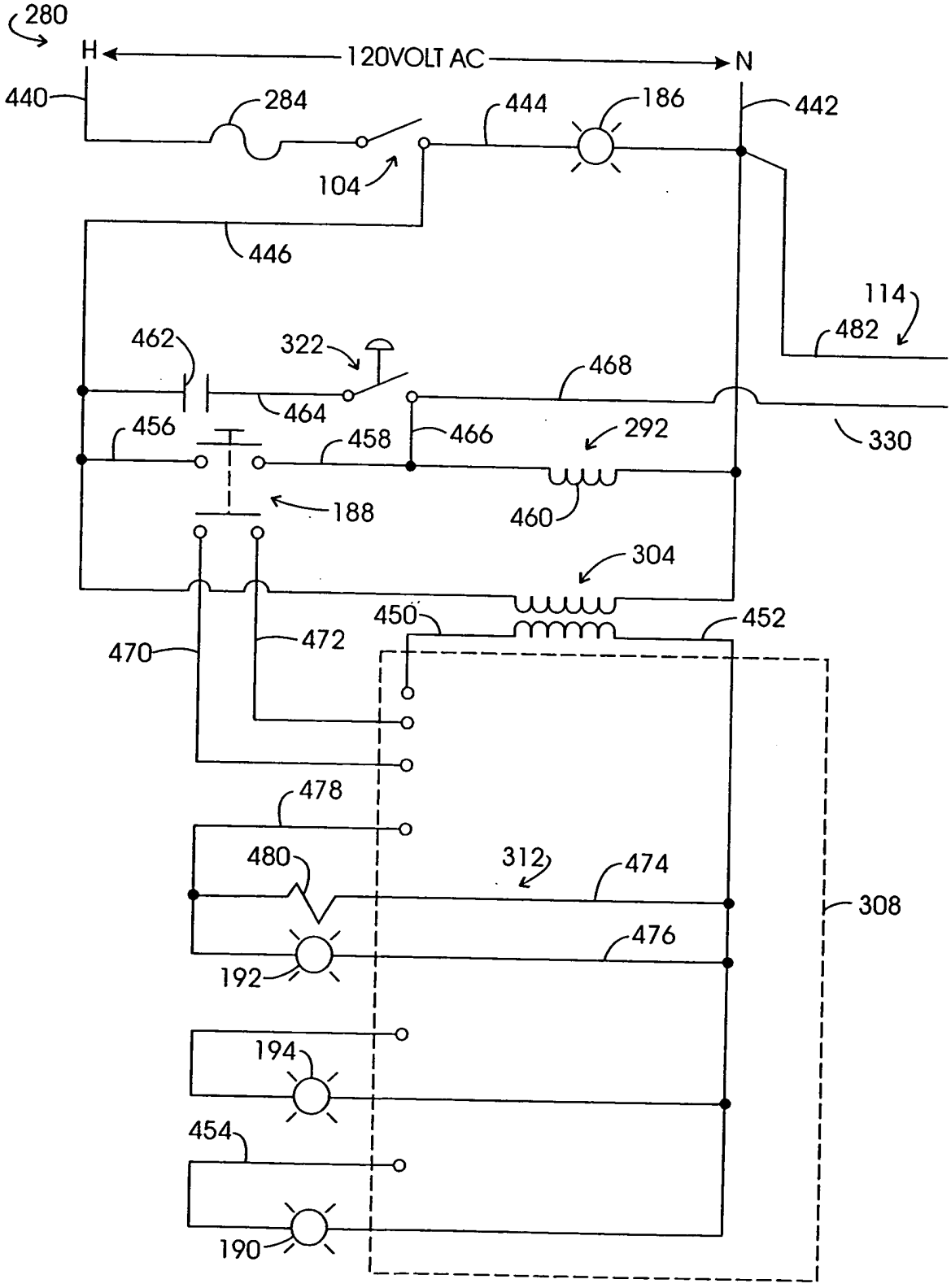

280
H
120VOLT AC
N
440
284
444
186
442
104
446
114
482
462
322
468
464
456
458
466
292
330
188
460
304
450
452
470
472
478
480
312
474
308
476
192
194
454
190

FIG. 14

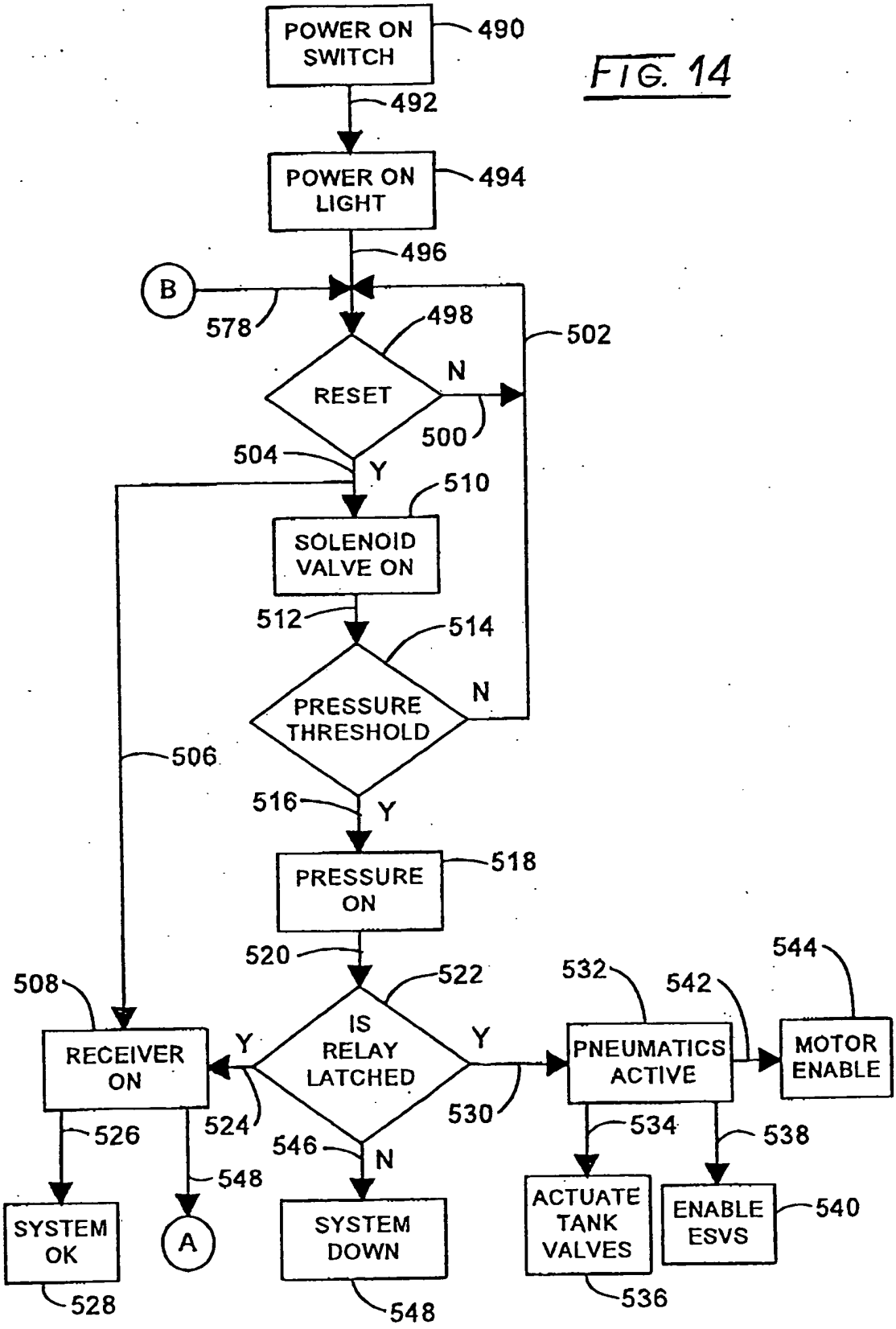
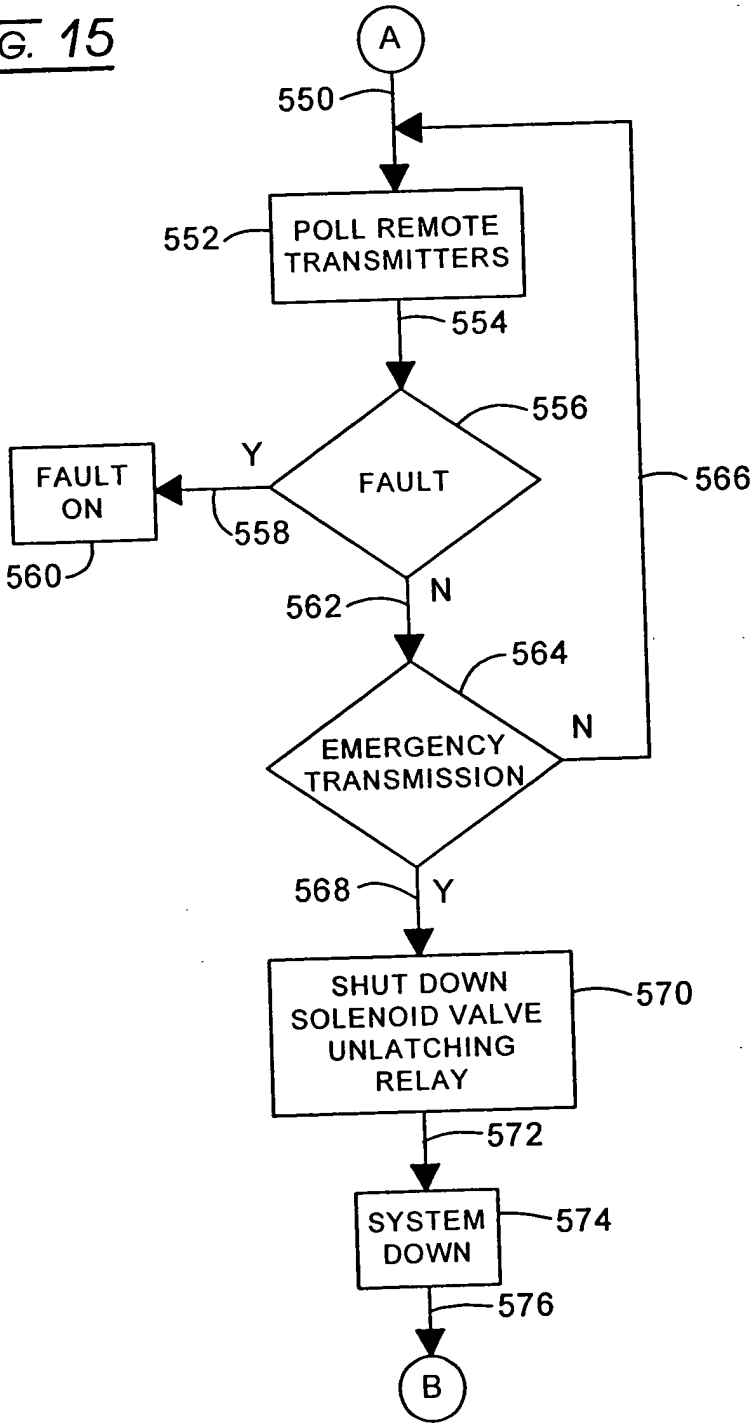

POWER ON SWITCH
490
492
POWER ON LIGHT
494
496
B
578
498
502
RESET
N
500
504
Y
510
SOLENOID VALVE ON
512
514
PRESSURE THRESHOLD
N
506
516
Y
PRESSURE ON
518
520
522
508
IS RELAY LATCHED
Y
Y
RECEIVER ON
524
530
532
542
544
PNEUMATICS ACTIVE
MOTOR ENABLE
526
534
538
546
N
548
ACTUATE TANK VALVES
ENABLE ESVS
540
SYSTEM OK
A
SYSTEM DOWN
528
548
536

FIG. 15


A
550
552
POLL REMOTE TRANSMITTERS
554
556
FAULT
Y
FAULT ON
558
560
566
562
N
564
EMERGENCY TRANSMISSION
N
568
Y
SHUT DOWN SOLENOID VALVE UNLATCHING RELAY
570
572
SYSTEM DOWN
574
576
B